

REMARKS

Claims 1-20 are pending in this application. By this Amendment, the specification is amended to correct typographical errors and to address the objection to paragraph [0014].

Claim 1 is amended to delete an "optional" clause, which is retained as a required further step in new claim 20, and to recite that the coating agent is applied to the yarn in an amount of from 10 wt.% to 800 wt.%, as supported at paragraph [0035] of the original specification.

Claim 12 is also amended for antecedent basis. No new matter is added by this Amendment.

I. **Response to Restriction Requirement**

Applicants affirm the election of Group I, claims 1-12, 16 and 17. The Restriction Requirement is respectfully traversed.

First, Applicants submit that the basis for the Restriction Requirement is in error. In particular, the Patent Office has incorrectly applied the "independent and distinct" standard instead of the proper "unity of invention" standard applicable to the present U.S. National Stage Application of a PCT application. The basis for the Restriction Requirement thus has failed to establish lack of unity of invention among the claims of Group I and Group II.

Second, the claims of Group II all depend from the claims of Group I. As such, the claims of Group II necessarily include the elected subject matter in Group I, and thus clearly the claims of Group II cannot lack unity of invention with the claims of Group I.

For the foregoing reasons, Applicants respectfully request withdrawal of the Restriction Requirement. Applicants further request that upon allowance of the claims in Group I, the claims of Group II be rejoined with the application and similarly allowed for all of the same reasons discussed above.

II. Objection to the Specification

The specification is objected to in referencing "claim 1." By this Amendment, the specification has been amended to delete this reference. Accordingly, reconsideration and withdrawal of the objection are respectfully requested.

III. Rejection Under 35 U.S.C. §103(a)

Claims 1-12, 16 and 17 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 5,573,850 (Cunningham). This rejection is respectfully traversed.

Cunningham describes a monofilament of high strength polyethylene as a fiber core having thereon an abrasion resistant polymer sheath. The coated monofilament is prepared by feeding the core yarn through a crosshead die while supplying a melt of the polymer sheath material at a temperature greater than the melting point of the core yarn to the die, thereby sheathing the core yarn within the die. The die is also under a sufficient pressure to cause the melt to adhere to the core yarn. See the Abstract.

Cunningham additionally describes at column 6, lines 1-24 that the core yarn may undergo a pretreatment prior to the extrusion sheathing. The pretreatment may be by any of numerous possible pretreatments, including exposure to a high voltage corona or plasma, applying a primer to the surface of the individual fibers of the core yarn (the primers preferably being applied to the yarn as a dispersion in water and the yarn then dried), scouring to remove any residual finish, wetting with an effective amount of a mineral oil, and the like.

Applicants respectfully submit that neither the pretreatment nor the sheathing coating methods described in Cunningham render obvious the method of claim 1.

A. Sheathing Application

The sheathing application procedure described in Cunningham differs from the method of claim 1 in several material respects. First, the method of claim 1 requires that the

yarn be placed in contact with a dispersion comprising a coating agent and a dispersing agent. The sheath material in Cunningham is not in dispersion form, but is instead merely a melt of the sheath polymer. In requiring a melt of the sheath polymer, Cunningham does not use a dispersion of the polymer and a dispersing agent, and would not have led one of ordinary skill in the art to the use of the sheath polymer in dispersion form.

Because Cunningham does not utilize a dispersion comprising the sheath polymer and a dispersing agent, Cunningham also necessarily fails to describe the step of forming a coating on the yarn by at least partially removing the dispersing agent of the dispersion by heating. Cunningham forms a coating of the sheath polymer on the core yarn by applying the sheath polymer at a temperature greater than the melting point of the core yarn and under a pressure sufficient to cause the melt to adhere to the core yarn. Such different method clearly would not have led one of ordinary skill in the art to the required method in which the coating is formed on the yarn by at least partially removing the dispersing agent by heating.

For the foregoing reasons, the sheathing application method described in Cunningham does not describe or render obvious the method of claim 1.

B. Optional Pretreatment Methods

As discussed above, Cunningham describes that any of numerous optional pretreatments may be made to the core yarn prior to applying the sheath polymer thereto. Among the many possible pretreatment options described in Cunningham, is application of a primer to the core yarn from a dispersion of the primer in water, the yarn being subsequently dried. See column 6, lines 9-18 of Cunningham. The optional pretreatment method described in Cunningham also would not have led one of ordinary skill in the art to the method of claim 1.

First, application of a primer in the pretreatment described in Cunningham does not result in the formation of a coating as required in the presently claimed method. The purpose

of the primer application in Cunningham is to provide reactivity to the core yarn, and requires a necessary further step of applying a polymer coating to form a sheath on the core yarn. The pretreatment application in Cunningham can thus not be identified with the coating step (sheathing) itself in Cunningham that is achieved by melt application, and application of the primer does not form a coating on the yarn as required in the method of claim 1.

Second, the pretreatment primer in Cunningham is applied in much lesser amounts, such as 5% by weight of the yarn at most (see column 10, line 2 of Cunningham), and is thus clearly not a coating which is provided in a much greater amount of the Cunningham yarn (from about 10 to about 90 weight % of the yarn; see column 4, lines 27-33 of Cunningham). Here again, the primer pretreatment in Cunningham clearly does not provide a coating as required in the presently claimed method, which is further emphasized by the fact that the method of claim 1 requires the coating agent to be applied to the yarn in an amount of from 10 weight % to 800 weight % of the yarn.

In applying the primer in very small amounts, Cunningham fails to describe or render obvious application of the primer to the yarn in an amount of from 10 weight % to 800 weight % of the yarn. In addition, because the primer is not to be the primary coating in Cunningham, but is instead merely added in order to render the surface of the core more reactive to the sheath polymer, one of ordinary skill in the art would not have been led to have significantly increased the amount of primer material applied to the yarn in Cunningham.

Third, Cunningham merely indicates that the primer would be applied from a dispersion and the yarn subsequently dried. However, Cunningham does not indicate that the drying would be by heating, and thus Cunningham also fails to describe or suggest forming a coating on the yarn by at least partially removing the dispersing agent by heating, as required in claim 1.

Fourth, claim 1 requires that following coating of the yarn, the yarn is cooled down and wound. Cunningham also fails to describe or suggest this required method step. Even if application of the primer material in Cunningham is perceived to be application of a coating to the yarn, Cunningham nowhere describes that following application of the primer, the yarn be cooled down and wound. In the Examples of Cunningham, the example yarns to which a primer is applied are not indicated to be cooled or wound prior to the subsequent required sheathing step. Cunningham thus also fails to describe or suggest this required step of claim 1.

For the foregoing reasons, Applicants submit that the pretreatments described in Cunningham also fail to render obvious the presently claimed method.

C. Conclusion

For at least the foregoing reasons, Applicants submit that Cunningham fails to disclose or render obvious the method of claims 1-12, 16 and 17. Reconsideration and withdrawal of this rejection are respectfully requested.

IV. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-20 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



William P. Berridge
Registration No. 30,024

Christopher W. Brown
Registration No. 38,025

WPB:CWB/rav

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OLIFF & BERRIDGE, PLC
P.O. Box 320850
Alexandria, Virginia 22320-4850
Telephone: (703) 836-6400

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